



Material Safety Data Sheet
ISO/DIS 11014 / 29 CFR 1910.1200 / ANSI Z400.1

Printing date 01/22/2005

Reviewed on 01/22/2005


1 Identification of substance

- **Product details**
- **Trade name:** *Enalapril Maleate*
ENACARD® Tablets for Dogs
- **Item number:** 48500, 48501, 48502, 48505, 48510, 48520
- **Manufacturer/Supplier:**
Merial Limited
3239 Satellite Blvd.
Duluth, Ga. 30096-4640
1-888-MERIAL 1 (1-888-637-4251)
- **Emergency information:**
Spill Information:
CHEMTREC® 1-800-424-9300
CHEMTREC® International 1+703-527-3887
International calls 011+703-527-3887
Reverse charges.

2 Composition/Data on components

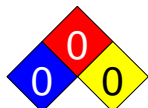
- **Chemical characterization**
- **Description:** Mixture: consisting of the following components.

· **Components:**

	Non hazardous substance	95-99%
76095-16-4	enalapril maleate (s)-1-[N-1-(ethoxycarbonyl)-3-phenylpropyl]-L-alanyl]-L-proline, (Z)-2-butenedioate (1:1)  T; R 61-36/38	1-5%

3 Hazards identification

- **Hazard description:** Not applicable.
- **Classification system:**
The classification was made according to the latest editions of international substances lists, and from company and regulatory data.
- **NFPA ratings (scale 0 - 4)**



Health = 0
Fire = 0
Reactivity = 0

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· HMIS-ratings (scale 0 - 4)

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

4 First aid measures

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
 Immediately wash with water and soap and rinse thoroughly.
 If skin irritation occurs, consult a doctor.
- **After eye contact:**
 Rinse opened eye for a minimum of 15 minutes under running water. Get medical attention immediately.
- **After self injection** Pure enalapril maleate is considered non-toxic in animal studies.

5 Fire fighting measures

- **Suitable extinguishing agents:** Use water spray or all purpose dry chemical.
- **Special hazards caused by the material, its products of combustion or resulting gases:**
 Smoke
 Nitrogen oxides (NO_x)
 Carbon monoxide (CO)
 Carbon dioxide (CO₂)
- **Protective equipment:** Self-contained breathing apparatus and full protective equipment.

6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:**
 Do not allow product to reach sewage system or any water course.
- **Measures for cleaning/collecting:** Dispose of contaminated material as waste according to section XIII.

7 Handling and storage

- **Handling:**
- **Information for safe handling:** Handle with care. Avoid jolting and impact.
- **Information about protection against explosions and fires:**
 Keep respiratory protective device available.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
 Store only in the original container.
 Protect from light.
- **Information about storage in one common storage facility:** Not required.

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- **Further information about storage conditions:**
- **Recommended storage temperature:** < 30°C (86°F)

8 Exposure controls and personal protection

- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Do not eat, drink, smoke or inhale.
Do not store food in the working area.
- **Breathing equipment:** *Not required for this formulation when used in accordance with directions.*
- **Protection of hands:** *Not required under normal conditions of use.*
- **Eye protection:** *Safety goggles.*

9 Physical and chemical properties

· General Information

Form:	Tablet
Color:	1mg Tablet: Blue/Yellow 2.5mg Tablet: Blue 5mg Tablet: Red 10mg Tablet: Yellow 20mg Tablet: White
Odor:	Recognizable

· Change in condition

Melting point/Melting range: 143-144.5°C (289-292°F)
Boiling point/Boiling range: Undetermined.

· **Flash point:** Not applicable.

· **Auto igniting:** Product is not self-igniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Specific gravity:** Not determined.

· **Solubility in / Miscibility with** water soluble

· **Solvent content:** 0 %

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10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**
 No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous products of decomposition:** No dangerous decomposition products known.

11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

76095-16-4 enalapril maleate

(s)-1-[N-1-(ethoxycarbonyl)-3-phenylpropyl]-L-alanyl]-L-proline, (Z)-2-butenedioate (1:1)

Oral LD50

1877 mg/ kg (mouse)
2346 mg/ kg (rat)

- **Primary irritant effect:**
- **on the skin:** No irritating effect known.
- **on the eye:** No irritating effect known.
- **Sensitization:** No sensitizing effects known.

12 Ecological information

- **General notes:** Generally not hazardous for water

13 Disposal considerations

- **Product:**
- **Recommendation:** Smaller quantities can be disposed of with household waste.
- **Uncleaned packagings:**
- **Recommendation:**
 Disposal must be made according to official regulations.
 Can be disposed of with household waste.

14 Transport information

- **DOT regulations:**
- **Hazard class:** Non regulated

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· **Land transport ADR/RID (cross-border):**

· **ADR/RID class:** Non regulated

· **Maritime transport IMDG:**

· **IMDG Class:** Non regulated

· **Marine pollutant:** No

· **Air transport ICAO-TI and IATA-DGR:**

· **ICAO/IATA Class:** Non regulated

15 Regulations

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act):**

None of the ingredients are listed.

· **CA Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity:**

None of the ingredients are listed.

· **Carcinogenesis potential categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

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· **Hazard-determining components of labelling:**

enalapril maleate

(s)-1-[N-1-(ethoxycarbonyl)-3-phenylpropyl]-L-alanyl-L-proline, (Z)-2-butenedioate (1:1)

· **Safety phrases:**

1/2 Keep locked up and out of the reach of children.

20 When using do not eat or drink.

· **Water hazard class:** Generally not hazardous for water.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Contact:** MSDS Coordinator, msds@merial.com

USA